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CLAIMS

1. A biological tissue comprising end thelial cells which may be induced to generate a compound which down-regulates the expression of a cell adhesion molecule by the cells, the compound being either (a) a polynucleotide complementary in sequence to part of the gene or mRNA that encodes the cell adhesion molecule, (b) a polynucleotide comprising a ribozyme sequence that specifically targets a gene or mRNA that encodes the cell adhesion molecule, or (c) a peptide or polypeptide with specific binding affinity for the cell adhesion molecule.
2. A tissue according to claim 1, wherein said polypeptide (c) is a bispecific fusion protein.
3. A polypeptide comprising a binding region capable of binding to a cell adhesion molecule and a signalling region for subcellular targeting of the polypeptide such that it is not transported to the cell surface.
4. A polypeptide according to claim 3, which comprises an antibody or antibody fragment.
5. A polypeptide according to claim 4, which comprises a single chain Fv fragment.
6. A polypeptide according to any of claims 3 to 5, wherein the signalling region for subcellular targeting of the polypeptide comprises a localisation signal for the endoplasmic reticulum.
7. A polypeptide according to claim 6, wherein the signalling region comprises the amino acid sequence KDEL at the C terminus of the polypeptide.
8. A polypeptide according to any one of claims 3 to 7, wherein said binding region has affinity for any one of the adhesion molecules VCAM-1, ICAM-1, LFA-1, CD2, PECAM, CD31, IAP, CD47 or integrin $\alpha v \beta 3$.
9. A polynucleotide encoding a polypeptide according to any one of claims 3 to 8.
10. A vector comprising a polynucleotide according to claim 9.

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11. A cell comprising a polynucleotide according to claim 9 or a vector according to claim 10.
12. Biological tissue comprising a cell according to claim 11.
13. A non-human animal comprising biological tissue according to claim 12 and/or a cell according to claim 11.
- 5 14. An animal according to claim 13, wherein said animal is a transgenic pig or sheep.
15. A method of rendering a tissue or organ suitable for transplantation, comprising expressing a polypeptide according to any one of claims 3 to 8 in endothelial cells in said tissue or organ, thereby down-regulating the expression of a cell adhesion molecule.
- 10 16. A method of transplantation, comprising transplanting biological tissue according to claim 12 from a donor animal into a recipient animal.
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